

caspase-11 p20 (M-55): sc-28230

BACKGROUND

Caspase-11 plays a crucial role in OLG death and pathogenesis in experimental autoimmune encephalomyelitis (EAE). Caspase-11 also leads to the synthesis of the functional form of the cytokine interleukin-1 β . Caspases are a family of mammalian proteases related to the ced-3 gene of *Caenorhabditis elegans*. These ced-3 orthologs mediate many of the morphological and biochemical features of apoptosis, including structural dismantling of cell bodies and nuclei, fragmentation of genomic DNA, destruction of regulatory proteins, and propagation of other pro-apoptotic molecules. Based on their substrate specificities and DNA sequence homologies, the 14 currently identified caspases may be divided into three groups: apoptotic initiators, apoptotic executioners and inflammatory mediators. Upon activation, caspases appear to play an important role in sequelae of traumatic brain injury, spinal cord injury and cerebral ischemia. In addition, they may also play a role in mediating cell death in chronic neurodegenerative conditions such as Alzheimer's disease, Huntington's disease and amyotrophic lateral sclerosis.

REFERENCES

1. Eldadah, B.A., et al. 2000. Caspase pathways, neuronal apoptosis, and CNS injury. *J. Neurotrauma* 17: 811-829.
2. Chang, H.Y., et al. 2000. Proteases for cell suicide: functions and regulation of caspases. *Microbiol. Mol. Biol. Rev.* 64: 821-846.

CHROMOSOMAL LOCATION

Genetic locus: Casp4 (mouse) mapping to 9 A1.

SOURCE

caspase-11 p20 (M-55) is a rabbit polyclonal antibody raised against amino acids 141-195 of caspase-11 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

caspase-11 p20 (M-55) is recommended for detection of caspase-11 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for caspase-11 siRNA (m): sc-37363, caspase-11 shRNA Plasmid (m): sc-37363-SH and caspase-11 shRNA (m) Lentiviral Particles: sc-37363-V.

Molecular Weight of caspase-11 precursor: 48 kDa.

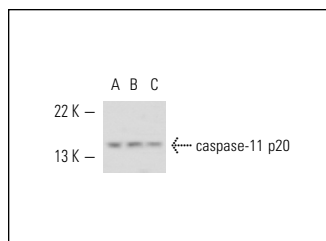
Molecular Weight of p20 subunit: 20 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, C6 whole cell lysate: sc-364373 or RAW 309 Cr.1 cell lysate: sc-3814.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



caspase-11 p20 (M-55): sc-28230. Western blot analysis of caspase-11 p20 expression in LPS/IFN γ treated RAW 264.7 (A), C6 (B) and RAW 309 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ramachandran, S., et al. 2006. Improved islet yields from pancreas preserved in perfluorocarbon is via inhibition of apoptosis mediated by mitochondrial pathway. *Am. J. Transplant.* 6: 1696-1703.
2. Fradejas, N., et al. 2010. Caspase-11 mediates ischemia-induced astrocyte death: involvement of endoplasmic reticulum stress and C/EBP homologous protein. *J. Neurosci. Res.* 88: 1094-1105.
3. Anderson, C.D., et al. 2011. Endoplasmic reticulum stress is a mediator of posttransplant injury in severely steatotic liver allografts. *Liver Transpl.* 17: 189-200.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **caspase-11 p20 (A-2): sc-374615**, our highly recommended monoclonal alternative to caspase-11 p20 (M-55).